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AGRICULTURAL AND INDUSTRIAL EXHIBITION.

(By Authority of the Board of Agriculture of Lower-Canada.)

THE IMPROVEMENT  
OF AGRICULTURE,  
AND THE  
ELEVATION IN THE SOCIAL SCALE,  
OF BOTH  
HUSBANDMAN AND OPERATIVE.

BY JAMES ANDERSON, F. S. S. A. &c., &c.  
Late Imperial Drainage Commissioner in Scotland, Editor of  
*The Canadian Farmers' Journal.*



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*Queen's University at Kingston*

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Late Imperial Drainage Commissioner in Scotland and Editor of  
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I have been requested to address you on the subject of the improvement of agriculture, and the elevation in the social scale of both husbandman and operative, and none more appropriate could have been suggested. No subject could have been named, more agreeable to me personally, and none with which I ought to be more conversant, taking into view the extent of my experience whether on the American Continent or in Europe. If I should fail, I can, on no pretence, seek shelter under the pretext of ignorance; nor shall I, in any way, seek to excuse myself, but shall be ready to confess myself both impracticable and unteachable, and shall be fain to give over the attempt and confess to a failure.

I shall not weary you with a long historical narrative, of what *was* and what *might have been*. I shall not occupy your time in detailing

what may through successive ages, have impeded or propelled its progress. I shall be contented to confine myself to *what is*, and depend for elucidation on what must be familiar to the majority amongst you;—to the practical, the experimental and the gentleman Farmer,—as well as to the master and operative.

I have said elsewhere that it has frequently been recommended to the emigrant, as the best way to acquire a thorough knowledge of farming, to hire himself out to a practical farmer; and I would add, if his means should conveniently permit of it, to become a pupil to reside in the house of a good practical farmer. He can make choice of his locality and preceptor; and should his lines fall in pleasant places, he will live comfortably, whilst he will enjoy the supervision and teaching of an experienced Agriculturist, with every thing around him that can aid in his instruction, both practical and economical. Here, from association, and interchange of visits, and topics of conversation, and remarks illustrative of professional management and varied local practice, he will, if an attentive observer and listener—speedily derive much useful information. He will find, if he should persist in following out his studies, that he has selected a line of life which will permit of his living in peace, comfort and plenty—wherein he may be enabled to realize a competence—if indeed in this new country, some fortunate accident should not present the chance of realising a fortune.

The improvement of Agriculture is not only a good thing in itself but does it not seem something like discharging a debt of duty, when opportunity offers, to repay our obligation to our common Mother: for dust we are, and to the dust we must return? We are here but in our cryalis state,—but we shall put on our wings in due season, and repair to the new heavens and the New-earth which await us. Then what more dignified or pious calling could be ours, than that of *collaborateur* with the Supreme Ruler of the Universe—he who dwells in the highest heaven working with us—of whom we may say with mingled awe and pride,—“Thou waterest her furrows; thou sendest rain into the little valleys thereof; thou makest soft with the drops of rain, and blesseth the increase of it.”

There are some—the foolish and nathinking—who hold many pursuits more honourable than Agriculture:—but he, who is daily and hourly cheered with light and life flowing from the fountain of true happiness, can well afford to disregard such disparaging opinions, and forget their babbling,—whilst he listens with native rapture to the merry songsters around him—making the hills to rejoice, and gladdening the valleys with their melody.

The farmer is placed beyond the vulgar temptations of the city. He lives frugally—it may be—but comfortably, and in independence. He does not expect to amass a fortune;—but if thrifty, his means go on encreasing, without his being subjected to excitement. He cares



for the well being of his dependants—for the education of his family—for the precious privileges of religion and neighbourhood, and he envies not the wealthy or the great—being contended with the assurance of enjoying moderate comfort while he lives; and when called on to bid adieu to the fields and scenes he so fondly loved, he rejoices in the prospect of rejoining his departed neighbours, who valued him while they lived as a friend and a brother. Who can deny that such a mode of life tends to make better men and women, and if so, better children likewise. He sees every means of comfort and happiness around him, that a rational heart could desire. He is free from the excitement of the city—from the temptations of radicalism and infidelity;—and he is prepared to supply the cities of his country with new relays of health and strength—with robust and vigorous recruits—with a constant influx of fresh material:—for is it not well known that the very men who toil therein with the greatest energy owe much of their ability to do so to their early country training.

We wish to show to our readers the mutual dependence existing between town and country. Can it be doubted that their true interests are and must continue to be reciprocal and in common. Whilst the Farmer lends his aid to beautify and adorn the earth, he is repaid by the return which his labours afford. And who becomes the purchaser of his surplus produce? Is it not his friend of the city, who supplies to him in exchange the many necessaries, comforts, and luxuries which a prudent expenditure can afford.

The cultivation of the farm is the natural employment of man. Perhaps virtue should thrive there best—the body and the mind should be developed most bountifully. There, temptations are the weakest,—and social intercourse the simplest and the sweetest:—there life flows most tranquilly, runs its longest course,—and has usually the happiest passage and issues.

But though this *ought* to be strictly true, farming life, in its present stage of comparative social advancement on this continent, has still its drawbacks. How is it that so many are tempted away from these fabled shades of bliss—to mingle with the busy crowd and become forgetful if their fealty and devotion to nature and her enjoyments? Any one, who is acquainted with the style of living amongst the cultivators of our soil, knows well that there is hard work, as well as poetry, connected with the ancient and honourable calling. It is too often the case that, in rural districts, the *great* man is the individual who is most distinguished for his muscle and feats of physical strength, rather than for intellectual endowments. To fell huge trees—to mow acres of heavy grass in the quickest time—to raise enormous weights—to excell, when leisure affords, in athletic exercises,—these are the achievements which ensure applause, and place the youth foremost in the ranks of excellence.

Now a certain part, and most would unhesitatingly say, the better part of our humanity repudiates the award,—this glorification of

brute strength over mind and heart. And the wife seconds her lord in his estimate, and begins to find the refinement of her womanhood rebel against a constant round of unvarying drudgery. She cannot abide that the *means* should be confounded with what ought to be regarded as the *end*. It is this feeling, so early developed, which makes the young of both sexes quit the farm in disgust; they become enchanted with the pictures of town life they eagerly devour in books, and of which they are permitted occasional glimpses at fairs and merry makings, and their youthful bosoms swell with the fond, and too often delusive hope, that by repairing to these elysian scenes, their labour may secure them higher rewards than the dull life of the country can afford; and they hope, to revel in unknown bliss—during the happy period of acquisition.

On most farms there is a studied avoidance of ornament. Everything is arranged with a view to utility. Our sense and appreciation of the beautiful—which is interwoven with our very being,—though for want of opportunities of education, it may be partially dormant is left nothing to feed on—nothing to dote on; but it seems as if studied pains were taken to disgust with every combination most uninteresting and repellent. From the cellar to the garret—from the garden to the neglected way-side—in *cuisine*, in social intercourse,—in everything—we have a studied avoidance of the attractive,—and nought is deified but work—work—work.

With the light of the nineteenth century, young people long for society and improvements, and naturally recoil from the tedium and barrenness, from the hopeless and endless toil without some interchange of the intellectual—the pleasurable. If their natural and commendable tastes cannot be gratified on the farm, young people will persist on going elsewhere, where even the transaction of every day business seems to have about it some thing of the pleasurable attractive to the unsophisticated denizen of the farm. I shall endeavour to convince my tyro-readers that this need not necessarily be the case. That after all,—the farmer's life *ought* to be the most attractive and pleasurable. I shall place within their view the easy means of innocent recreation and enjoyment; and deem that in thus providing for their permanent comfort and improvement, I am only performing the duty of a faithful Agricultural Mentor.

I hold it to be my duty to furnish my Agricultural friends of all ages in the country with every useful aid in their profession,—culling whatever is most valuable and of greatest practical interest,—whether in the discoveries of science bearing upon their pursuits, or in the opinions, and practices of leading Agriculturists. I shall conceive it to be my duty, at the same time, occasionally to make such suggestions and remarks as will tend to form the judgment of junior aspirants on the best models, in combination with the judicious use of all such valuable helps as well selected books and a sound education are calculated to afford them. *No man can succeed in life who does not take a pride in his*

*calling.* It is this which inspires with a generous emulation, encouraging the youthful aspirant, and leading him on—who can tell—to receive one day the high reward of the civic crown.

It has been truly said that head, heart, and members, the three grand seats of individual power,—the organs of the three supreme forces—these, one and all in harmonious action, constitute the complete Agriculturist and Mechanic—the true and perfect man in every sphere.

The approaching Industrial Exhibition is an Institute discovering the rarest wisdom,—a public Educator—an Institute of instruction to all classes, and in which all classes should cooperate and participate :—affording, as it will do, to both, reciprocal pleasure, profit, and instruction. Its avowed public object is to stimulate and quicken invention ;—to enliven and recompense the ceaseless toil of patient drudgery ;—to encourage soul depressing routine with the hope of reward ;—to render old task-work bearable ; to raise the tone of his character, and vitalize and quicken the spark of laudable ambition in the dull and discouraged operative of every class,—formerly without the prospect—whatever his merit, of achieving personal distinction in his craft ; unless indeed by some rare and fortunate accident ;—to forward the objects, and advance the main purposes of civilization : in a word, to act, at once, as the Educator and Benefactor of society :—affording a true index of the popular bent :—as a truthful reflection of the popular taste and genius in this country,—so supremely blest in its natural resources, and in the blended natural vigour of its population.

It is clear, on the smallest reflection, that no more effectual means could be devised for the amelioration of society of every grade. By stimulating invention, you are doing your best towards the practical inculcation of the fundamental rule ;—for well directed industry alone can ensure permanent comfort and independence, while it is the best guarantee for the attainment of the most envied description of respectability in a country, wherein the vast majority are doomed, for many a day to come, to subsist, in the literal sense, by the sweat of the brow. Is it not clear, then, that in no country could such an Industrial Exhibition be more desirable, or commendable—better adapted, or more suited to the actual requirements and social and economical necessities of the population than in our Province of Canada, which now sees dawning upon her—in family participation with her enviable Sisterhood—the glorious future of a distinct Nationality.

By stimulating industry, you are taking the simplest and most direct course towards improving the material and social condition of the people. By the practice of industrious habits, the operative will be enabled to lodge better,—to fare better, to dress better,—and to educate to greater perfection himself and his children ; himself by the aid of Public Libraries, Mechanic's Institutes, and Private study ;—



and his children, partly by the means we have indicated, and by embracing the opportunities of instruction afforded by our Public Schools and Colleges, and the Information for the People, now published and circulated so widely at a very moderate price ;—so as to be, as nearly as possible, within the reach of all who may be in quest of it.

It is a characteristic feature of the form of society under which we live, that there is a distinct recognition of the true dignity of labour. The lazy demagogue may talk patronizingly of that portion of his fellow men which he is pleased politely to style the “working classes”,—in contradistinction, of course, to the more favoured compeers of his own quiescent state of *otium sine dignitate* :—he may bid for their favour as a politician—he may condescend to flatter, as he supposes, successfully, their innate human vanity ;—but the intelligent Agriculturist and Mechanic, he may rely on it,—poor deluded mortal,—has discrimination and perspicacity enough to rate his compliments and flatteries at their true value ; recognising, the motive and its promptings ;—and will, at once, turn with gratitude and hope to the true patriot and lover of his species, who, by the encouragement of such demonstrations as our Provincial Exhibition,—such jubilees of handicraft,—such ovations of patient and successful industry,—such coronations of the genius and dignity of labour, as would fain exalt the working man to his true and merited position in Society—teaching him to respect himself, while his distinguished genius and patient industry are extorting plaudits and respect from the public voice of his consenting and grateful countrymen.

The hero, the philosopher, the statesman, the saint, the agriculturist, the mechanic must, alike, win the civic crown by a prudent and persevering exercise of industry and virtue. We all, alike, contend in the great public arena, in which we find ourselves accidentally placed, for the legitimate rewards of merit ; and in order to insure the permanent blessing of a superintending and approving Providence, we must not faint or fail in well-doing,—but must be encouraged, even in spite of repeated successes or reverses, to go on steadily and perseveringly in the honorable course of toil, from perfection to perfection—for our own honor and credit, and the lasting benefit of our fellow men. We must not, while still in our prime, be delivered over into a compulsory or luxurious sloth ; we must not hide our candle beneath a bushel, depriving ourselves and others of the generous light which a higher power has indulgently entrusted to our keeping ;—but be quick to recognise our unmistakable duty, in whatever sphere we may be placed, which undoubtedly is to exert our faculties and endowments to the utmost for the advantage of the Society of which we have been made to form, though not a solitary—yet but an insignificant unit. And although it takes many drops to form the ocean, yet we should not withhold our *petit possible* ; but heartily, cheerfully, and confidently contribute our mite, however small, towards the great aggregate of industrial effort, which forms, alike, the pride and material wealth of every great and progressing commonwealth.



The approaching Provincial Exhibition is a great National organisation—having for its object the encouragement and reward of Industry of every description. It is clear from the few words we have said it merits the approval and encouragement of all classes. They cannot fail to recognise, in its object and intention a reciprocal interest, which ought to form the only true and lasting bond in every well-constituted society. The more frequent these demonstrations,—the more frequently and clearly will all classes be brought to recognise their acknowledgement of the great truth that the hand cannot say to the head nor the head to the hand—go to—I have no need of thee!

Come then—one and all. Join heart and hand in the celebration of our national Jubilee, of which one and all have an individual—ay, and a fraternal interest.

It is fondly desired and hoped that the agricultural exhibition will come up to—if it should not excel, all former years. The facilities for the importation of stock from foreign countries, as well as every new species of Agricultural and Horticultural Seeds and Plants, and Models of improved Agricultural and Horticultural implements, are now so numerous, that it would indeed be strange if advantage should not be taken of them to the utmost. Nothing shall be wanting on my part to keep our agriculturists *au courant* of all that is going on amongst us in the way of noticeable and well tested improvements. Though we deprecate that insatiable itching for novelty,—that reckless desire for experimentalizing,—which, in truth, discourages and retards substantial improvement—by discrediting the propagation and adoption of that which is truly valuable; for by encouraging empty pretension and treacherous deception, in the same breath in which you laud valuable discoveries, praiseworthy adaptations or applications of practical skill,—you are deliberately and effectually, though, it may be, undesignedly, mixing up truth with error; thus heedlessly fostering and encouraging both at the same moment; and you are manifestly taking the most effectual plan to render thoughtful and judicious men distrustful of every thing novel—tho', in many cases, its adoption might be productive of material and immediate profit. I may perhaps see occasion elsewhere to recur to this subject at a future time.

I am most certainly one of those, in this advanced age, who recognise the necessity for combining science with practice,—and cheerfully and frankly acknowledge that it will no longer do to affect a contempt for the sciences in their practical relation to Agriculture and the Arts. Who can doubt, during the present century especially, the wonderful effect the development and practical application of the sciences have had on the well being and civilization of the World. And Agriculture in most countries has been largely a partaker—but the full realization, though somewhat delayed, is evidently at hand. The perfection, then, of the more practical parts of the profession, instead of standing independent or excluding the scientific branches, finds itself mainly dependent upon them; and they

progress hand in hand rejoicingly, much to their mutual credit and benefit.

Without entering into any lengthy, tiresome, learned discussion, permit me to say, that though it is no doubt true that the successful cultivation of the soil is now a days, under the most approved systems, mainly dependent on Organic Chemistry for its successful cultivation, there are other sciences which are equally its tributaries, and, amongst these, Geology, vegetable Physiology, and Zoology. There is no employment which embraces so thoroughly the kingdom of Nature, and in none will the influence of science be more beneficially felt. I have, elsewhere, more than once asserted, that on this account, the object of the intelligent agriculturist in tracing their relation should be, not alone for the purpose of rendering the cultivation of the soil more productive, but for the purpose of exercising and strengthening the reflective powers—and of elevating and ennobling the order to which he belongs by making acquaintance on familiar terms, and associating all that is at the same time elevating and useful, and may tend to distinguish and adorn the economic and social fabric of Canadian Agriculture.

The soil is the first care of the husbandman. This he tills, cultivates, and reaps the reward of his labour. Soils are of inorganic structure, and are derived from the rocks which underlie them, or have been transported from a distance by the agency of water. This accounts for the differences which are observable amongst soils in different districts; hence also the striking similarity by which they are found to be characterized over large areas. From the crumbling of the granite, we have a coarse sandy soil; from trap, we have an open loam, usually rich and fertile; from slate rock, a clay more or less cold, stiff and impervious; from sandstone, an open and often a hungry soil. Does this not demonstrate the intimate and practically useful connexion between Agriculture and Geology? So that a map indicating by different colours the areas covered by rocks of different kinds and ages might be enabled with some certainty to predict the general nature, capabilities and limits of the several soils to which the fragments of these several rocks gave rise.

But not only are plants, stones, and animals mutually dependent; they actually resemble each other in their nature and chemical composition. They each, indifferently, consist of matter organic or inorganic—combustible or incombustible. For instance, in all our first class soils, capable of sustaining a long succession of the more valuable crops of agriculture without cessation, we find, an appreciable quantity of ten or eleven different chemical substances—viz., potash, soda, lime, magnesia, alumina, silica, iron, manganese, sulphur, phosphorus, chlorine. Soils thus constituted—with the constituents properly proportioned,—require no manure, and we find many such examples of virgin soils, over large areas, in all our colonies. But I

must now remark, that the plants which grow on soils, on a chemical analysis, are found to contain some nine or ten different substances, exactly the same in every respect with the inorganic part of the soil itself; and these substances are derived therefrom; so it is clear that every fruitful soil must contain them in sufficient quantity, if plants are to grow in a healthy condition upon it. Some plants contain more of one substance than another—some more lime and magnesia—others more potash and soda,—others more sulphur, or phosphorus, or chlorine;—so that Nature's law will hold good that one kind of crop will abstract from the soil more of one kind of inorganic matter than another: and some other crop, of some other. And here we have distinctly pointed out the necessity for having recourse to rotations of crops—in other words a succession of different crops,—in order to develop and preserve, without deterioration, the native or acquired fertility of the soil. In order to a full and vigorous growth we must study the complete adaptation of the constituents of the plant to the constituents of the soil on which we would grow it. If it should be exhausted,—we shall say from overcropping,—of any of the necessary ingredients, it would be prudent to do our best to supply them by manuring or top dressing before venturing any special crop, requiring their presence. We ought to labour to supply the things which all our crops, or any special crop, in all their parts, conjointly carry off. Is it not clear, then, that Organic Chemistry has much to do with the successful prosecution of Agriculture as a profession?

But surely we ought to know something of the structure of the plants we cultivate—their organs, and the functions these organs are called on to discharge. Now these are of two classes—those essential to the vegetation and growth of the plant, and those essential to its reproduction and propagation. The first are necessary for the assimilative process—for the conversion of the crude juice into the living vegetable organism—and is analagous to the digestive, circulatory and respiratory organs in the animal kingdom. The root absorbs in a state of solution,—the mineral substances congenial to the plant, and acts as a reservoir of nourishment for the plant the following spring;—especially in the case of biennial plants, the stem conveys the juices, and serves as a support to the leaf; and the leaf under the influence of the solar rays, changes the crude juice into the very nature of the plant; while, at the same time, it acts as a most powerful exhalant and absorbent. Now, every root has three parts—the spongioles or rootlets, or small fibres; the middle or fleshy part; and the collar or neck. These, by the power of capillary attraction absorb the substances congenial to the plant, convey these substances, in a state of solution, to the vascular tissue, and thence to the leaf, by means of the attraction of the solar influences. Now these rootlets would appear to be endowed with a power, in some sense, akin to instinct. They are deputed to select or reject what is congenial to the plant—and act somewhat in the same way as chemical elective affinity. In all this, the agriculturist must surely take a deep interest. And who shall say that he cannot turn such knowledge, the knowledge afforded by vegetable Physiology, to his advantage.



But the bodies of animals, when burnt, leave a quantity of ashes, establishing a general analogy between animals and plants. The proportions also vary in different portions of the same animal, as in the plant. But their invariable proportions are perfectly and absolutely necessary to the constitution and healthy existence of each several part. And the substances constituting this ash are identical with the ash of the vegetable food the animal subsists on. We find potash, soda, lime, manganese, oxides of iron and manganese, sulphur, phosphorus, and chlorine. Thus we see the analogy between soil, plant, and animal becomes closer and yet closer at every step of the investigation. Can it be doubted then, that such knowledge—the knowledge of Animal Physiology—must be valuable to enlightened agriculturists.

Is it not clear, then, that, from such knowledge, based on such principles, an immense amount of ill directed labour, at present fruitlessly expended, might be saved; that cultivation might be conducted on more sure and exact principles;—that the return of grain and esculents would be greatly increased from the same outlay;—that the live stock on the same area might be largely increased in number and quality;—that the surplus produce of cereals, esculents, and butcher's meat would be much more abundant, and that, in the combined result, the population at large, as well as the individual producer, would assuredly participate. I think, then, my readers will, one and all, agree with me, that the dissemination of such knowledge as I have been glancing at is of the highest public importance—that it must ever be attended with incalculable public benefit.

It is full time that attention should be directed to the alarming scourge which annually desolates our agricultural districts, before it becomes so general as to favor the loathsome idea, that all our agricultural industry may be swallowed up in the overwhelming devastation. — But I am hopeful and trustful, and I have elsewhere asserted, that this great discouragement may be got the better of by judicious culture.—I believe that thorough draining, subsoiling, and judicious manuring, with thorough tillage in every stage will be the means of so invigorating and propelling the healthful development and robust growth of our cultivated crops in their earlier and more tender stages, as to place them speedily beyond the reach of being materially injured by the foul attacks of insect enemies. I believe, that due attention to the proper period of sowing, so as to escape the fatal and well ascertained period of insect development—and thus depriving them of their necessary *pabulum*—to starve them in fact, from pure want of sustenance that this continued consentaneously over large districts by mutual consent and arranged by our agricultural societies and municipal councils:—I believe that this, with the well timed application to the surface of the soil of alkalis in a caustic state so as to secure the destruction of the insect in its grub state—the same application made to seed,—the straw and the tailings, or dressings.—I believe that persevering attention to these and several other

appliances and recommendations which I shall, from time to time introduce elsewhere to public notice for public distribution, will slowly, it may be, but surely overcome the overwhelming evil which, at the present moment so imminently threatens wholesale devastation to the hopes of the husbandman.

When talking of draining, elsewhere, we have had occasion, to regret the inferiority of our produce in quantity when compared with that of the high taxed lands of Great Britain and Ireland. It is painful to think it should be so, but we are not without our remedy. — Let us not blindly confide in the inexhaustible fertility of our soils. — Grain crop after grain crop so long as they will grow, will too surely and too speedily exhaust them—or reduce them to absolute sterility. And the deeper you plough, and the more perfect your implements of husbandry, the more speedily and perfectly will you succeed in rendering them worthless. You must guard against this by well regulated rotations and generous and intelligent management—by supplying economical sustenance in manures and dressings—by returning to the soil as much of the produce as due attention to reasonable profits will permit,—and so hard down your holding from father to son—unimpaired in condition and increased in value with the increase of population and prosperity of your district.

I have said nothing of Meteorology — who does not know the use of the barometer.—I am told by an authority that cannot lie that “while the earth remaineth, seed-time and harvest, and cold, and heat, and summer, and winter, and day, and night shall not cease.” And though it is by no means necessary that an agriculturist should become an accomplished meteorologist,—still he regards silently the signs of the weather—he consults his barometer; and he is willing to confess that his diligence has not passed unrewarded.

But while all that I have been urging is perfectly true, it is nevertheless undeniable that one great obstacle to the advancement of scientific agriculture is to be found in the non-acquaintance of men of science with practical agriculture.—Were men of science to become acquainted with practice, we might expect much greater advances to be made in scientific agriculture, than if the practical man were to become a man of science; because men of science, are necessarily, from previous education and habits, more capable of conducting scientific research; and it is to be feared that until the relation between principle and practice are thoroughly understood, scientific researches—however important in themselves and however interesting cannot be expected to determine in so much practical benefit. But the sooner this point is reached the better.—It should commend itself to the statesman and true patriot, as well as the man of science, and the man of practice. They should lose no time in working together for the common good.

A good sound education and good common sense followed by the necessary apprenticeship, will go far to make a good practical farmer.—But it is to be regretted that it often happens that the most promising youths in a family are destined for some of the learned professions, or for town life.—The country is in this way a great loser.—The self taught farmer—is frequently unfortunate; or only preserves the appearance of success by keeping up an extravagant expenditure—giving the shadow for the substance. Give me the regular apprenticed farmer; whether having served with his father or another.—He knows that he must adapt his system to the circumstances of the country, soil and climate in which he may be temporarily placed. He knows his duty systematically, experimentally—he adopts the system he has learnt—pursues it steadily—and improves on it by degrees as he finds opportunity. He is well aware that the sure condition of success will rest in the adoption of a proper rotation of crops, thorough cultivation, manuring and draining.—This is a good sound and substantial basis to rest on, and it will not be difficult to engraft upon it all the more valuable modern scientific improvements.

Generally I am not wrong in directing attention, in this country, where the state of the farm will permit of it, to greater neatness—to have the ploughing and other farm operations finished in a more workman like manner—the furrows, more straight, deep and firmly and compactly laid together—the ridges uniform in width, to facilitate the operations of sowing and harrowing,—and carefully gathered into the proper shape.—Greater attention ought to be bestowed on fences and buildings.—It seems unnecessary to explain the great advantages to be obtained from thorough tillage. The pulverisation of the soil to prepare it for the reception of the seed—to exterminate weeds—to increase the area in which the roots of plants are to spread themselves in quest of that food common sense, unaided by science, would tell us it is their function to supply to the plants. The depth will vary—but, in any case, 7 or 8 inches are the least we can be satisfied with. This is about what a pair of horses, in moist soils, can turn over easily; and, to go deeper, recourse must be had to subsoiling by a plough following in the wake of the common plough, also drawn by two horses, and stirring the ground to the depth in some cases, of 8 inches or more, with or without bringing the subsoil to the surface.—It is usual to use the subsoil in the course of summer fallow, or in preparing for green crops, and when, at any time, the ground is thrown out of ridges with a level state. It is made to cross the intended ridges at the second last ploughing, and in ploughing up the land, the plough is made to run to its greatest depth, it may be 10 or 11 inches—thus bringing up, where desired and mixing as much of the subsoil as may be considered advantageous under the circumstances, with the surface soil. The Michigan subsoil plough,—though a cumbersome implement,—has been much used—called the Michigan subsoil and french plough—by one operation turning over the surface soil, and the subsoil is brought up and deposited upon the top,—the ensuing ploughing mixing both thoroughly together.—This is a hard work for one good



stout pair of horses.—When the subsoil is a retentive imprevous clay this improvement has produced the best effects. My respected old friend, Mr. Smith of Deanston, as is well known, introduced both the theory and practice of draining and subsoiling to prominent notice ; and did more than any one man living or dead to recommend and extend the judiciously combined systems of thorough draining and subsoiling.—But, by the practical man, it will always be regarded as a question of pounds, shillings and pence—and the cost, it is to be feared, will, for some time to come, in many localities, prevent their coming into very general use in Canada.—But I hope to live to show that this need not, after all, be such a bugbear, and they can be conjointly used for a very small outlay, when compared with the resultant profits in most cases where they are required and could be recommended.

But in this climate there is such a thing *as overworking* the soil.—there is such a thing as opening the soil so much as to facilitate, unnecessarily, the evaporation of the valuable gasses and juices, contained in it.—For my part, I think on well wrought, friable soils, the grubber, which I largely employed elsewhere for similar purposes, might safely take the place of the plough—which covering a space of five or six feet—stirring up the ground to a depth of 7, 8 or 10 inches, bringing up the remaining weeds to the surface—would compared with the plough, ensure the economy of 20 per cent to the farmer—performing the necessary work as well,—and retaining more perfectly, at the same time, treasured up in the soil, the available elements of vegetation.

But so little is manuring appreciated in some cases, that we have actually seen the barn when full and untenantable therefrom, actually taken away from the manure, instead of taking away the manure from the barn.—And when used, we have seen the farmer spread it on the nearest field at the expence of all the rest. I do not wish to name localities, or specify individual instances of such slovenly practice ; —but I am sure they will, at once, suggest themselves to some of my readers.—It has now become a question with the most intelligent farmers, whether, even with the best management, the ordinary resources of an ordinary farm are capable of maintaining the average fertility of every part of the farm. One thing is abundantly certain, that if we continue to extract more from our soil than the resources of the farm will restore, we are moving backwards and not forwards, and becoming every day in nearer approximation to the point of exhaustion.—By such a process our farms would, in the end, become a *caput mortuum*.—Are there no such old farms in Canada?—We hear of farmers daily moving off West.—But we doubt whether they have given their country a fair trial ?

We must depart from the starvation plan. We must adopt a system which will enable us to feed and litter our stock sufficiently. We must learn to grow roots and more of the hardiest species of corn.

We must become familiar with the straw-cutter, and the root steaming apparatus. An acre that will produce 1000 bushels of beets will only produce 50 bushels of corn. Straw-cutters of all descriptions and steaming apparatus must be produced at the lowest figure,—so as to enable every tenant to avail himself of the great advantages resulting from feeding with a combination of corn, steamed roots and cut fodder. This is one means of making the most of our resources in Lower Canada. Instead of permitting our cattle to walk about like starvelings in winter—with scarce enough to sustain the breath of life within them—thus permitting them to lose all condition—all indeed but life—checking their growth—leteriorating the breed and losing many by premature death—we have but to introduce the easy practice we have just recommended, to make a speedy revolution, which will as speedily elevate our characters as farmers—filling their pockets at the same time.

We will speedily improve and multiply our stocks,—we will increase the number kept on the farm—we will increase the quantity of manure, and finally we will, as certainly, increase our quantity of corn and grain. From starvelings ourselves, we will become men well to do in the world—men of comfortable independence. Surely this is a true, and sufficiently encouraging practice,—may it soon be verified !

Then, to those who can afford it, we have plaster, gnano bone dust, and the new fish manure,—in which, if honestly compounded and sold unadulterated, I have much confidence, and I tell you plainly I expect therefrom immense benefit to this country. We have, in our gulf, deposits which when compounded, will at least prove as valuable as the guano beds of other climes ; and Canada ought to become a country as rich in the production of manure as any clime. I do not despair to see the time when manure will become an immense export, realizing a very large sum in exchange every year. We shall see ships from every southern port on this continent---We shall see European craft in great number crowding our harbours, and the fish compost of Canada will be known as a most valuable fertilizer in every country of the world. It only requires capital and enterprise, properly directed, to realize to the full all I have just promised you.

I have elsewhere urged, and shall continue perseveringly to urge the necessity for the extension of draining in this country. Surely the past moist season has told a tale of which all have either heard or experienced the truth. Wheat failures, potato rot, oat rust, insect depredations, and a thousand ills have more to do with inefficient drainage than even our most thoughtful farmers have yet fully realized to themselves. I have enlarged, and shall enlarge on this subject elsewhere. But there is no time on this occasion for a special lecture or lectures on thorough drainage and its effects. I shall content myself with affirming, that where wanted, it is the foundation of all

good farming and that crops would be infinitely more abundant, and diseases of all kinds less prevalent, were it prudently practised throughout this country. I shall go on without fail, and under every discouragement, to illustrate this elsewhere in such a light, as cannot fail to convince the most sceptical.

On this continent, Agriculture exists, in every stage from the most primitive to the most advanced. We find the stalwart pioneer emerging with a proud look of independence from his log cabin in the forest, we may follow him in every stage of progress from this secluded home, as the forest disappears behind him ; till, in the end, if things have prospered with him, he has been enabled to employ all the modern appliances of art and science, and to live in comfort and independence surrounded by a well settled and prosperous neighbourhood. He will tell you of his first communings with nature—of his rearing his lone dwelling in the wilderness, with none but the denizens of the forest for his neighbours and familiars :—he could tell you how his manly courage oft sank within him—how his stout heart, in spite of its higher promptings, so often failed within him—how step by step, he emerged from his condition of dependence—how he laboured on confidently—how little comforts multiplied around him—how the village arose in his neighbourhood—how it increased in population and wealth, and grew into the proud city ; how his fortune increased with the prosperity of his neighbourhood, and how he now looked forward to end his days in peace and comfort in the bosom of a happy and contented family, amongst the remaining neighbours, who commenced with him many a day ago, to make a home amidst the wilderness of the forest. When he seized his axe with willing but untutored hand, unlearned in wood craft—knowing nothing of the precise angle of obliquity at which to guide it,—he continued to ply the strong arm with sedulous perseverance, until the lofty king of the forest trembled beneath the force, and bending low in stately dignity, came thundering to the ground, with a crash which made the surrounding woods to ring and echo, and burying his great bulk in the snowy carpet ;—how he was followed, in like manner, by another and yet another victim, until, in a few years, a wide clearance gave a field for the more profitable and extended operations of the industrious husbandman.

Nature has done much for this great country. Our educational advantages are great and extending. Let us endeavour by such gatherings as the present, and by disseminating popular instruction of a wholesome, practical description, to create amongst all ranks a universal thirst for knowledge. Let our agricultural societies and clubs prove themselves indeed, in the highest sense, the farmers friend ; and cheerfully cooperate with the Boards of Agriculture and Government Departments to prove the efficiency of their combined agency and supervision. Let Mechanics Institutes, with their libraries, and reading-rooms—their lectures abounding with sound practical information, be every where established to wean the operative from glos-



ser and more degrading pleasures and determine him to habits of thrift and intelligence,—insuring comfort to himself and dependents ; and encouraging him as a good and reliable citizen to do his duty to the country he owns ; and which he has to thank for the means of subsistence—and it may be to love as the land of his birth.

Are we right or are we wrong in hinting a fear that a mistaken consciousness of self sufficiency is sometimes an obstacle to agricultural progress. Is this not a common obstacle everywhere and in all times, to the free spread of useful knowledge, and to adaptations from rival or foreign countries ?—Is it not the case even to a certain extent in various districts of the same country ? In almost every other vocation there is a constant comparison of rival processes their efficiency and results. The processes of agriculture are too often carried on in comparative isolation and independence ; and unless it be at gatherings such as the present, there is scarce any recognisable identity or reciprocity of interest or of feeling ; and the benignant influences of brotherhood, and the stimulants of generous rivalry have no place, unless through the columns of the Agricultural Press, or in such a comparison of products and implements in each department of productive industry as the present Exhibition so benevolently affords.

And does not the mechanic benefit equally with the husbandman ? We shall proceed to show that he does so. Let us, for a moment, as has been elsewhere remarked, regard man as he is,—with head and heart the great centres of independent vital organisms,—each complete in itself, originating and maintaining its own complex movement, but both cooperating, in concordant beauty of harmony, influencing and directing their common agents—his various members—to the performance of every necessary or predetermined duty—yet operating as if voluntarily, instinctively, or impulsively, as it may be.

What human mechanism can ever rival in perfection this little microcosm—in apparent complexity, yet too well known to the anatomical student in marvellous simplicity, in flexibility, yet countervailing strength and endurance ; in delicacy, yet surprising tension and firmness ; in noiseless, yet definite and intelligent action. And what is mechanism but an extension of the action of our bodily members. It is but the primitive agency reproduced or multiplied. What are our looms, our presses, our steam engines of every form, and for every conceivable purpose, but the evidences of a determined purpose to meet the requirements of our age and our more advanced civilization—to enable us to supply, in greater variety and profusion, and at cheaper rates, the thousand and one comforts and luxuries,—which have now become necessities,—for what were, at no such distant date, the luxuries of the millionaire, have now become the necessities of the humblest, and we had almost said, in some cases, the poorest,—in prosperous times, and in a flourishing community.

It is worthy of especial remark, however, that excess of complica-

tion or elaboration in a machine, tends uniformly to destroy its practical usefulness. The wider a machine departs from the simple and normal standard of construction, so abundantly and perfectly exemplified in the divine model, the farther does it range from instrumental perfection, and those special characters of compactness, facility, accuracy, adaptedness—not overlooking, at sametime, these indispensable compensations between force and velocity which at once evidence the triumphant union and concordance of scientific skill and practical adaptation—the cultivated genius of the honoured projector.

But if this be so, is it not plain that every faculty as well as every limb was given us to be exercised—to be ennobled by service. Is it not clear that, in this view, we have the most plain method of arriving at the proof of the true dignity of labour. Does it not teach us to scorn the listless and effeminate, and recommend, that if ever common sense and justice are to gain the ascendant amongst a rational and educated people, and when the time shall have arrived when a conviction of right and justice, and true expediency shall have possessed the public mind—in any readjustment in the scale of honours, it will be necessary, nay incumbent on us to return to the simple truth, which should be laid down for perpetual observance and regarded as an unfailing axiom amidst all the fashionable fastidiousness and daintiness of our modern customs, that the regular idler, in any rank;—consuming and not producing—by head, heart, or hand—or all combined should be, of general consent, regarded as an unsufferable excrecence on society, and that he should be taught to feel that he has almost a necessity to apologise for wearing a human organization and intruding his cumbering and obstructive bulk in the midst of an industrious and prosperous community. No excuse for idleness can be accepted at any time. By head, heart, hand or purse a man can at all times contribute to the welfare and happiness of his fellow men. If he should not feel inclined or neglect to do so, he is a cumberer of the ground, and he scarcely deserves to have a being. He strides about as a voluntary solecism in Nature.

Let us bear no more of your scheming demagogue, beslattering and bespattering with blatant praise that portion of his fellow beings, which he is condescendingly and patronizingly pleased to designate as the “working classes” *par excellence*. They are proud of the title. They exult in the dignity of labour. They are not ashamed of the brown skin, and the grimed brow, and the tough hand,—but they only respect such men as put an honest faith in their capabilities and they are resolved to be true to their own order, and their own line; and they have no value nor admiration for their fancied superior, who can boast of nothing better than his hereditary compulsory or luxurious sloth.

In this great age of invention, there is a reprehensible conservatism too prevalent in narrow and contracted minds, which would exclude the practical use of the triumphs of mechanical genius.—They perceive, at

first view, that hands and machines come into competition. They conclude that nothing but idleness and starvation stare multitudes in the face and refuse to be convinced by the plainest proofs of the economy of the new invention. A crusade is forthwith preached against the daring innovations, and an ignorant and unthinking rabble would fain condemn to penury and persecution the greatest benefactors of the age and country.—What drove Hargreaves out of Lancashire to save his offending life;—what prompted Lawrence Earnshaw to break up his own machine, in a fit of benevolent solicitude, least he should be the means of taking bread out his neighbours' mouths?—But did not Arkwright give wages and food to millions of workmen, and pour unheard of wealth into the treasury of the nation—producing, at same time, a mighty economical revolution in every country of the civilized world.

It is a fallacy to suppose that labor saving machinery—or any multiplication of it—can ever diminish the means of living.—The operation of labour saving machines and contrivances is directly and indirectly to encrease labour. This, to the uninformed, is a seeming paradox,—but it has been proved truthful, by the evidence of experience,—and without a single exception.—It is the unvarying law of labour that it moves forwards on one harmonious plan.—Every legitimate development, or inventive production in one direction, favours a consecutive or reciprocal development in another.—The annals of the arts are eloquent and conclusive on this head.—The inconveniences caused by the introduction of any great mechanical invention in depriving a section of the population of employment, is but local and partial in its operation,—but its benefits are cosmopolitan and permanent.—It creates demands only to satisfy them.—It is not too much to say, of such a benefactor of his species, that he is indeed created in the image of his maker. But your fashionable idler—your dainty dangling millionaire would look down on such a nondescript—and perhaps be inclined to ask him, as a certain king did a certain mighty inventive genius at the moment of his triumph,—“And pray what do you sell sir?” Boulton replied. “I sell, sire, what kings are all fond of—*power*.” Such a reply would overwhelm all empty pretention of ignorance with merited confusion.—But though this be true—the mechanic must take care lest he fall into a similar error—and despise what is truly estimable—merely because his opportunities have never enabled him to perceive its excellence.—Prejudice is unfortunately a cosmopolitan and perennial weed, and it should be the especial care and study of every liberal and upright mind to do its best to ensure its perfect extirpation.—And nothing can operate more efficiently towards the attainment of this great social triumph than the frequent occurrence of such fraternal national meetings as the present—teaching, as they do, and impressing upon all their mutual dependence; and giving all who are worthy of such a distinction the opportunity of participating in such a glorious ovation of industrial excellence—such a coronation of the triumphs of labour.

But to be intellectually the *facile princeps*—the lord superior of every



place and calling requires something more than attention to more ordinary duties.—The master mind struggles hard to discover where his every day employment reaches forth, by some of its less salient ramifications into the secret facts—the remoter recesses of creation. This is not patent to many—because not sought after.—They are satisfied with more prefatory—surface knowledge—just sufficient to enable them to earn their bread—or, at most, to live in tolerable comfort—or it may be, ensure them a very moderate competence.—But few have that inquisitive turn so legitimate and commendable,—which can alone be satisfied with the triumph of interior knowledge, which enables the diligent and haughty enquirer to perceive the true dependence and relations of things, and to enquire how far a careful comparison of concordants and repellants may bear upon the nature of his own especial craft, and, by a lucky chance, may, by some unexpected agreement or disagreement—by some unforeseen betterment or transmutation, open up to his astonished view the first of perhaps a long chain of experiments which may, by patient perseverance and testing, lead to discoveries, which may eventually realise on ample fortune for himself, and permanent convenience and comfort and it may be higher blessings for his fellow men.—There is no art which may not be materially improved by persevering study and application alone.—And then no art which may not be extended and enriched by the aid of its relation to the kindred sciences. The mind is an infinite and untiring traveller. The sciences interlace and reticulate. Strike the commonest topic, if it lead to a normal fact, you will incontinently travel some of the by-paths which land you at the gates of the Temple of truth;—for truth is one and indivisible. Let the expanding ideas of our youth, then be the guarantee for the grandeur of their triumphs, in discovery and invention. Let them seek after elevated knowledge in every line, and determine on fixing at the outset a high standard of action. — It has been said in talking of historical epochs, that every thing is grand in a grand age.—That one lofty and enquiring mind is a support and an incentive to its fellows.—The youth of our country then should be made to know that they, in performing aright their duty to themselves, — by struggling after perfection themselves,— their successful endeavours, will bring the noble average up along with them,—and that they are taking the most certain means, to elevate and equalise art at a higher level—that they are doing their best to convince all of the facility and possibility of yet higher attainment and accomplishment—that they are doing their best not only to shed an enduring lustre on their own names, but are, at same time, elevating the national character, for excellence in their own walk, and it may be establishing and embellishing an era in the annals of native art.—The relationship between the personal progress and the good of society, should ever be recognised as one of the prime necessities of our modern systems of industry and education—teaching, at once the immensity of his trust and the greatness of his dependence.—No doubt, whilst it will ever be the object of the mechanician to ensure to himself the greatest profit at the least expense,—yet higher minds will combine with this a higher aim—will long after the production of a perfect thing—will labour hard to combine beauty: finish, grace, adaptedness—employ-

ing and attesting the highest and most exquisite combinations of science and art,—but, however patriotic, care must be taken that these aspirations should not, too frequently, lead to a self-oblivious—self-sacrificing enthusiasm:—for it is a just and enduring maxim that the labourer is worthy, of his hire. Consecrations of the spirit of knowledge so disinterested and heroic would exalt and dignify any vocation. Such lofty souled devotes create a genuine nobility and brotherhood, which are every where bounded together by a link perhaps as spirit-stirring and obliging in many instances, as the universally recognized obligations consequent on relationship or consanguinity.

Philosophy scatters, wide her treasures of mercy:—the arts pick them up occasionally and reproduce them in countless forms of usefulness and luxury, and commerce distributes their products abroad, and conveys them into different and distant countries. All this tends to increase the allowed amenities of home; to enliven the simple pleasures of the workman's genial evening.—And such assemblages as the present bring kindred faces together, heal jealousies,—cool the fever of rivalries—spread abroad generous good will, and high souled liberality of feeling and with such aims, and convictions in the ascendant there is no destiny too bright or auspicious for this happy country. Learning should become the preceptor of industry, and the man of wealth should hasten his aid to crown—will directed enterprise and energy with the well-deserved reward of merit. Science, art and literature should combine to individualize and distinguish, and bind together a humble and grateful adoration at the throne of the great original who as so beneficently endowed them individually and gifted them with a country teeming in abundance of natural resources which await the fashioning hand of industry to convert them into forms of value and of usefulness for the benefit of mankind.

But I am no advocate for over-refinement to the disregard of necessary toil, and I also know that no attainable wisdom and force might absolutely shield the farmer against disappointment and disasters from frost—from hail—from flood—from the ravages of various insects. But one thing is clear, that, one year with another, the farmer who ploughs deeper and better, who manures his land more bountifully,—who tills his fields most thoroughly,—who keeps down weeds most assiduously,—who sows his grain more early and timely, who mellows his land and sweetens it by the withdrawal of superfluous moisture:—one thing is clear, that such a man will have a larger produce and higher prices than his slovenly neighbour, who is ever negligent even though he should farm a superior soil, and be backed up by untold wealth and credit. Industry and assiduity sustained by knowledge will never go without their reward; and nowhere is it more certain than in the field of agriculture. It is clear that a soil kept in high heart—rich in the elements of a vigorous vegetation—well tilled and comminuted—warm and genial, and free from the noxious influences of redundant moisture, must be better prepared to yield to a growing crop, the elements of an abundant har-

vest, than a soil which has been neglected or exhausted, or poisoned by injudicious applications under the title of fertilizers. A small farm well tilled and a little barn well filled will be found more renumrating than the false system of encreasing the acreable area, rather than encreasing the acreable produce.

I think that market gardening might be much further extended in the neighbourhood of our larger towns and cities—much to the profit of the producer and to the benefit of the consumer. If so this extension would be extremely beneficial both in an economical and sanitary point of view.

There is a great and prominent superiority we enjoy, whether emigrants or old settlers in this country—and it is this,—the facility which is afforded to every sober and industrious resident to acquire a holding of his own at moderate cost. He exists here neither serf nor tenant. He is lord and absolute superior of his property, and no man can deprive him of, or insist on his right to participate in the produce of his industry. Taxes are light and burdens trifling, and all is expended for his own benefit. He has nothing to complain of—nothing to grumble at. Let the youth of this country then cease to waste their precious hours in delusive hopes and golden dreams—delusive and fallacious—but after a few years of patient plodding industry—whilst receiving their inatiatory instruction—by the practice of economing and temperance, they will speedily acquire the necessary amount which will enable them to purchase apropertytheycan with pride and pleasure call their own—they will freely choose their future homes—they will cease to be hirelings, and by ten years of persevering energy and unfailing thrift, steadily win their way to permanent independence and competence, and go down to the grave, most probably after a long life of comfort and rational enjoyment, beloved and respected, and regretted by a sorrowing neighbourhood. Who would not envy the happy lot of such a man.?

I would again revive a suggestion amongst many others which I had the honour of making to the late Lord Metcalfe, when Governor General of these Provinces, and for which I had the gratification of receiving very flattering commendations.

The Indian Rice is as highly esteemed by the Indians of the North West, as was corn in the first settlement of this country by the Indians of the North East. Its great abundance in the swampy lakes of Minesota, and nearer our doors, is well known. The squaws in September, who pushing their canvass among the thick growth, bend the heads of the Rice over the sides of their rude vessels, beat out the grain with their paddles, and after drying it in the sun, husk and winnow it,—have sold it at the rate of a dollar a bushel to the traveller who found it properly prepared, an agreeable dish and an admirable supplement to this failing stock of provender. Its appearance



resembles the reed common to our tidal water courses,—growing where no other crop can be cultivated, and not on recently drained or on newly reclaimed land. Besides, plantations of Indian Rice will, necessarily be free from *malaria*.—the curse of southern Rice fields. I myself, received it in Scotland on several occasions for experiment, packed up in dry paper, and the seeds germinated, and flowered and bore fruit ; but it should be committed to the soil, below water immediately after transport. It seems as if nature herself had intended this cereal to become at a future day the bread corn of the North—with careful cultivation ; and what recommends it especially is that it abstracts no portion of the available corn lands of the country from culture—but will be merely a vast available supplement to the general stock.

Having been extensively engaged too under the Government drainage commission in Scotland, I have also ventured to suggest and offer the adaptation of the Imperial scheme to the necessities and requirements of Canada. I have provided myself with all the information to be obtained from the Inclosure Commissioners of England, with whom we lately acted, and every facility and assistance has been frankly and cheerfully offered by the Imperial Commissioners.

Before concluding, let me beg of you to join with me whilst we reflect with becoming pride on the probable speedy development, and great future of the American Continent. What magnificent and noble topics we have to reward our well directed energies. The question of the future Government of the Hudson Bay Territories—the settlement of the Red River Colonies—of British Columbia and Vancouver's Island---the Federation of the British American Colonies—the great International Railway system,—the continuation of the Grand Trunk to the Pacific coast ; the seat of the Canadian Capital ; the Telegraphic Cable connecting continent with continent—the East with the West;---ought not the contemplation of these mighty subjects to fill the mind of every lover of his country—every lover of civilization,---with lofty views and becoming pride,as himself, in some capacity,is doomed to figure as a promoter or participator of such world wide benefits.---Of what gigantic political developments is this land destined to be the fruitful parent ! What a mighty future awaits her ! Let us then once and for ever down petty squabbling and suicidal antagonism ---let us bury the hatchet---let us disabuse ourselves of all sectional and sectarian heats—and let all our activity of body and of mind become absorbed in the single idea of ministering to the prosperity and glory of our common country---to show ourselves worthy of the brilliant destiny which certainly and immediately awaits ourselves and prospectively our descendants ;---and this in humble but confident reliance on that protective arm which can shield from every evil and oppression, and that watchful eye which slumbers not nor sleeps,---but is constantly bent in benignant approval on all those who in truthful reliance on omnipotence are busied in working out the task which a kind providence has set before them.









